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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/049,995

02/20/2002

Jun Saito

1422-0519P

4521

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7590

09/18/2006

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EXAMINER

BOYER, CHARLES I

ART UNIT

PAPER NUMBER

1751

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/049,995

Applicant(s)

SAITO ET AL.

Examiner

Charles I. Boyer

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,9-13 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-13 and 15-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/15/06</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This action is responsive to applicants' request for continued examination received September 8, 2006. Claims 1-7, 9-13, and 15-19 are currently pending.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is confusing because the claim requires that step (B) is carried out after neutralizing the liquid acid precursor, yet the claim also allows for step (B) to be carried out after a point of initiation of formation of coarse grains of the neutralization mixture obtained during a course of a neutralization process in step (A) (emphasis added). It is not clear whether step B is initiated after, or during, step A.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 1-7, 9-13, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nitta et al, EP 936,269.

Nitta et al teach a process for preparing high density detergent compositions (see abstract). An example of such a process adds sodium carbonate and sodium tripolyphosphate to a mixer, followed by alkylbenzene sulfonic acid such that the LAS is fully neutralized (note the absence of any aluminosilicate in this neutralization). At this point, an aqueous solution of acrylic acid-maleic acid copolymer (meets the liquid binder limitation of the claims) and 4.2% zeolite with a particle size of 4 microns is added to the neutralization mixture, yielding a final composition of free-flowing granules with a bulk density of 760 g/L, wherein the composition comprises 12% zeolite (page 13, example 1 and page 19, table 1). Note that this process includes blowing a gas during the neutralization step (see page 23, table 5). Further note that substances generally employed in detergent compositions, such as aluminosilicates, may be added after the neutralization step and prior to the step of adding liquid components (page 8, paragraph 62). In this scenario, an aluminosilicate would be added after the neutralization, followed by binder, then followed by additional aluminosilicate, which is precisely what is presently claimed. To further support this scenario, recall that the final composition of the example above contains 12% zeolite. As only 4.2% zeolite is accounted for in the process description, additional zeolite must have been added at some point, and the scenario set forth above is certainly a plausible, if not a likely pathway.

A person of ordinary skill in the art then, based on the teachings of the reference, would find it obvious to prepare a granular detergent by the scenario set forth above and so render obvious the claim limitations at hand.

Applicants have traversed this rejection on the grounds that only by their structured and precise timing can one advantageously control particle size in the inventive methods and thereby arrive at a high-bulk density detergent composition having a bulk density of 650 g/L or more. The examiner acknowledges this argument, but maintains that as the reference renders obvious the same process as that presently claimed, the present claims are still properly rejected. The examiner also notes that the criticality of this order of addition as set forth in applicants' arguments is not supported in the present specification. In the first paragraph of page 19 of the specification, applicants state: "It is preferable that the liquid binder is added to the neutralization mixture obtained in step (A) before or after the addition of the inorganic powder." Applicants' teaching that the binder may be added either before or after the powder appears to teach away from the "strict addition requirements" in applicants' arguments.

3. Claims 1-7, 9-13, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mort III et al, US 6,794,354.

Mort et al teach a continuous process for making a detergent composition (see abstract). This process begins with a zeolite-free neutralization step in a first mixer containing a liquid acid precursor and sodium carbonate as an alkaline inorganic material, followed by an intermediate step where optional liquid or particulate materials

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may be added, such as a zeolite free-flow aid. The "second" agglomeration step adds a liquid binder to the free-flowing powder obtained from the previous steps (col. 6, line 25-col. 7, line 35) and as much as 10% additional detergent ingredients, such as aluminosilicates, which may be added as additional builders or coating agents, may be added in the second step (col. 13, lines 27-39). An example of such a process results in detergent agglomerates having a bulk density of 680 g/L and a particle size of 550 microns (col. 15, example 1).

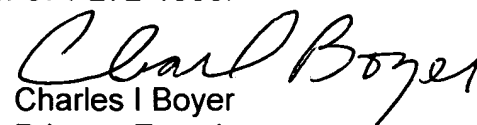
Based on this teaching, the following scenario can be easily envisioned, whereby after the neutralization step, a zeolite free flow aid is added in an intermediate step, after which a binder, followed by additional zeolite, is added in the second step. Such a scenario is precisely the method claimed by applicants.

The examiner acknowledges that this scenario is merely one of many that could be envisioned by a reading of the reference. However, it is precisely this latitude with regard to process steps that the examiner notes time and again in the prior art and leads the examiner to the conclusion that there are many different ways to formulate an agglomerate and the person of skill in the art is aware that at times it may be advantageous to add all of the binder or particulate in a single batch, and at times it is better to add the ingredients in alternating steps, as presently claimed, depending on the needs of the formulator. Such processes are known in the art, as evidenced by the reference, and do not represent an unobvious difference over the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles I. Boyer whose telephone number is 571 272 1311. The examiner can normally be reached on M-Th 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on 571 272 1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Charles I Boyer  
Primary Examiner  
Art Unit 1751